VALUE AND PRICE THEORY IN RELATION TO PRICE-FIXING AND WAR FINANCE

By B. M. Anderson, Jr.
Harvard University

Most economists have given scant attention to legally fixed prices. The active, large-scale, competitive market, where prices are free to seek adjustment under the influence of economic values, has received our chief attention. Mill limits himself very strictly: "I must give warning once for all," he says, "that the cases I contemplate are those in which values and prices are determined by competition alone. In so far only as they are thus determined, can they be reduced to any assignable law." Later writers have added their law of monopoly price, based on the principle of maximum net return to the monopolist, but few writers, in discussing the general theory of value and price, have gone beyond that. Mediaeval theory dealt largely with fixed prices, but from the moral, rather than the economic, viewpoint, for the most part. In discussions of railway rate-making, we have chiefly discussed legal and moral questions. We have here, however, developed a good deal of economic analysis, considering the influence of rates on different industries, on different sections of the country, and on the volume of railway traffic. The problem of legally fixed minimum wages has led some writers to grapple with fundamentals, and here I would especially refer to Professor Seager's lucid analysis in his presidential address before the American Association for Labor Legislation in December of 1912.

On the whole, one gets the impression from the textbooks that legally fixed prices are either futile or harmful, apart from the case of monopoly, where there is a surplus above costs to bear the shock. The discussion of usury laws is typical. The doctrine there is that usury laws are either ineffective, because the legal rate of interest is put high enough not to interfere with the natural rate, or else are evaded, or else drive capital away from the community where the legal rate is enforced. The difficulty of enforcing fixed prices, the danger of forcing merchants to close their shops, the danger of driving supplies away from the market, or of stopping production, have all been emphasized, and have, moreover, been abundantly illustrated from the history of such attempts. Most economists have had grave misgivings about the policy of

price-fixing which the present war has brought upon us in America, and there has been no clear statement of theory from those engaged in fixing the prices which would serve to reassure them. Writers in trade journals have been much perturbed by the "repeal of the law of supply and demand." There can be no doubt that practice is ahead of theory in the present situation. One gentleman engaged with regulating prices is reported to have said: "We have no theory. We are merely meeting, with a new ruling, each new contingency as it arises." This paper cannot pretend to offer an adequate theory for the new situation, but it can raise some questions, based on the developments in the actual course of price-fixing, which will pave the way for a more comprehensive view of the new problems.

In the six or seven weeks that have been available for the preparation of this paper, it has been impossible to make the detailed investigation of the facts that would be required if the conclusions here presented made pretence to finality. The chief attention has been given to wheat and flour, copper, and coal. I am far from sure that I have an adequate grasp of the facts regarding these commodities. Men in the trades express widely varying opinions. The trade journals likewise present a wide range of opinion. Even the government officials seem far from agreement as to what has been accomplished, and what may be safely expected. The tentative conclusions reached are as follows: the price-fixing policy has been a success in wheat and flour; it has been successful in copper; it has done good in the case of anthracite coal; it has done much harm and little good in the case of bituminous coal, but the situation is improving there, and there are possibilities of further developments—later to be mentioned—which may make the regulation of bituminous coal one of the most important parts of the whole program.

Economic values are primarily concerned with the guidance of production and consumption. When values are rising for a given commodity, the tendency is for labor and capital to flow into the industry which produces that commodity, and away from industries where values are falling or are stationary. When values rise, moreover, the tendency is for consumption to be checked, for existing stocks to be more economically utilized. But economic values are only part of a wider social value system, concerned with the guidance and control of social activity. This wider system includes social moral values, and legal values, as well. All these

values manifest themselves to a given individual as objective pressures or lures. They are psychological in character, but they grow out of the complex interplay of the minds of many men. They represent, to a given individual, the minds of the rest of the group, putting pressure on him, or offering him lures. Legal values, or laws, are that part of the social will which will be backed up, if need be, by the organized *physical* force of the group, through the government. Social moral values are values which the group enforces by praise or blame, by cold shoulders and ostracism, or by honor and approbation. Social economic values are values which the group enforces, under a system of free enterprise, by profits and losses, by riches and bankruptcy. Under a socialistic system the economic values would not immediately guide production, but would guide the bookkeeping and planning of the government, and lie behind the laws or authoritative commands which immediately control the activity of labor, and the utilization of the land and capital of the group.

We have been used to think of two main types of social organization, and two main ways of guiding the employment of labor and capital. The system of free enterprise, where prices, controlled by economic values, guide production and consumption, we think we understand. Our economic theory has been worked out to explain it. We have also devoted much theoretical analysis to the socialistic system, where the state owns the land and capital goods, and where labor is subject to authoritative control. It has been assumed that these two systems are mutually exclusive, that you can have one or the other, but that you cannot mix them.

In fact, however, we do find them mixed. In the socialistic utopias, we often find schemes for the automatic guidance of labor under a system of varying wages, working on commercial principles; and in our system of free enterprise we have many cases of state activity, and cases where the state commandeers property or even life. The conscripted army, or the conscripted *posse comitatus*, would, of course, be extreme cases of this.

Further, we find many cases, both under the system of legal control and under the system of free enterprise, where men perform services, and perform them well, under the influence of values which are neither legal nor economic. There are many unpaid, or inadequately paid, governmental officials who find their reward primarily in prestige, in the approbation of the group. There are positions of dignity and honor in the world of business, and

very especially in the professions, which men prize more for the sake of prestige and dignity than for the income they bring. Every day, in every trade, commonplace men are more upright than the law requires them to be, because they wish the esteem of their fellows. It is no mere pious wish that is expressed in the saying, "A good name is rather to be desired than great riches." Most men live by that. Social expectation is the most powerful steady motive force in social life. It is only when great riches, regardless of how they are obtained, command the respect and awe of the group, that the normal man will sacrifice other forms of honor to gain the honor which great riches confer. We cannot begin to understand the possibilities of the present governmental program until we have given attention to the power of these values, which are neither legal nor economic, on the lives and activities of men.

More than that, we must recognize that in the most complete system of free enterprise, the law enters at every step. Free enterprise involves *contract*, and contract is a legal fact. The entrepreneur dreads bankruptcy, and bankruptcy is a legal fact. Moreover, economic values are compounded of many elements, among them the laws that govern the distribution of wealth. If the law should equalize fortunes in New York City, we should find the values and prices of Riverside palaces and steam yachts sinking, and the values and prices of the luxuries of the erstwhile poor rising, even though individual utility schedules remained unchanged. Tariff and other tax laws reflect themselves promptly in prices, and the stock market is constantly watching court decisions and legislation, and marking stocks up and down in response to them. Moral factors are likewise constantly at play in the economic value situation. The stocks and bonds of the Distillers Securities Corporation are well below what they would be if there were no opprobrium attached to owning them. Government bonds sell above their natural level because of patriotic support. In times of financial stress, legal forces are called in to aid in sustaining the waning economic values—moratoria and legal holidays are declared. The government, the banks, and the stock exchanges coöperate in organizing non-economic forces to avert the collapse. Minimum prices are set for securities. Sales below these prices are prevented. The securities, if unmarketable at these prices, are still available as bankable collateral at these prices, and are *valid* for the purpose of averting the legal fact

of bankruptcy. The government is, of course, not the only institutional center with power and prestige. The banks and the stock market alone may do it.

We may well find, therefore, that the present governmental policy is not so anomalous as it at first appears. It presents anomalies for our current economic theory chiefly because that theory has been highly abstract and unrealistic, worked out in a vacuum, on the assumption that there are such things as pure economic forces.

Where the state contents itself with a fiat, fixing retail prices, but leaving the rest of the economic situation uncontrolled, we may well expect the law to be a failure. Some merchants will obey it, but if the price fixed is below the wholesale price, bankruptcy will prevent their obeying it very long. The temptation to evade the law, to sell secretly to favored customers at higher prices, or to shut up their shops entirely, will be irresistible. History is full of such cases. But we have a different problem when the state undertakes to control the whole chain of prices leading up to the retail price. Clearly if the retailer can buy at a wholesale price which allows him a living profit, he will be able to sell at the legally fixed price. Will he sell at that price? He has more demand at that price than he can supply. The answer given by our conventional demand and supply analysis is, therefore, that he will raise his price anyhow. His customers, competing for the inadequate stock, will bid up the price. But we have been seeing a different situation in the case of sugar in recent months, particularly in New England and New York. In Massachusetts, where I have been able to watch the thing most closely, the retailer has, in general, kept pretty close to the price suggested by the regulating boards. There has been, for the retail market, informal suggestion rather than strict legal control. But it has been effective. When supplies have been exhausted, consumers have waited for more. Stocks have been rationed out, sales being limited to ten pounds, and finally to two pounds, or one pound, for each customer at a given time. The preference has been given to regular customers as a rule. I have found no evidence at all that rich customers have been favored, though probably that has occurred at times. Customers have themselves withheld their purchases. Anxious and able to pay high prices to get more sugar, they have restrained themselves, and put pressure on their neighbors, to help make the inadequate supply go around. The re-

tailer has felt some pressure from the law, more from public opinion, a good deal from the wholesalers, who have at times refused to sell more sugar to the few retailers who have ventured to raise their price. On the whole, the retail price of sugar has been held far below the level that would have obtained had there been no effort to control it. Nor is there any reason to believe that higher retail or wholesale prices of sugar would have hastened by one day the inflow of sugar from Cuba, Louisiana, and the beet-sugar sections. Unrestricted bidding for the inadequate stock, town against town, and rich against poor, would have led to a different distribution of the existing stocks, and a much less satisfactory distribution, but not to more sugar. It was a case of temporarily strictly fixed supply, and the price-fixing policy, accompanied by the rationing out of the stock, was the best solution that could have been quickly devised.

We need not go far in the explanation of the success of the efforts to restrain the price of sugar at retail. It is explicable on ordinary commercial principles, when the various factors we have been considering are taken into account. The retailer views his business as a whole. His "good will" is a valuable thing, which he has built up slowly, and which he doesn't care to put in jeopardy. If he had sold his sugar at high prices to his richest customers, he would have lost more than he would have gained. How far this would apply, however, in restraining him if a dozen staples were involved is not so clear. More is involved than the balancing of profit and loss. But the larger the percentage of his business involved in the price-fixing policy, the harder it will be to hold him. In the case of retail coal dealers, for example, whose whole business is in the one commodity, there is evidence enough of a great deal of profiteering, in the absence of definite legal restraint. Even here, however, the force of public opinion has been very great, and coal dealers have shown great moderation, and a real sense of public responsibility in rationing out their stocks, so that all of their customers might have consideration.

I do not think that the problem of holding dealers, retailers and wholesalers, to a reasonable margin of profit is a serious one, viewed as a war-time matter, and viewed as a short-run matter. Legal and moral pressures will accomplish it, if the margin be not too narrow, and if the expectation be clear that it is not to last forever. What about the problem, however, as we go further back in the chain, back to manufacturers, and back still further, to

miners, farmers, and lumbermen, who supply raw materials, or back to the laborers, who are "ultimate factors of production" at every stage? How far is it possible to put pressures of a non-economic sort on them, to induce them to forego the prices they could expect under the free play of economic values?

On the whole, we may expect among manufacturers, laborers, mine-owners and farmers the same general human nature, and the same sort of responsiveness to social pressures, that we find among retailers and wholesalers. The questions to be answered regarding them relate to the possibility of applying the social pressures, and the possibility of their being able to respond to them. It is easy to apply social pressure to conspicuous men and to large corporations. If they violate the law, evidence is obtainable, and juries, especially in war-time, will take pleasure in convicting them. The finger of scorn is easily pointed at them, and they can be made to wince before public condemnation. Moreover, the fact that a given man or corporation is handling large enterprises makes it easy to see that the public welfare is really affected, and great praise is given to conspicuous services—as in the case of Mr. Ford. Where industry is concentrated, therefore, control by non-economic values is easy. The railroads have been operated, since the war began, with a primary purpose of serving the country, and with profits made incidental—very incidental! The banks and stockbrokers have given great services, and services which have cost them a good deal of money, gratuitously. The great copper mines and concentrated copper selling agencies have been brought under governmental direction by an organization within the trade itself, which controls the shipments, as well as the price, and which is really selling, at the price fixed, exclusively to those customers who need the copper for public purposes. Anthracite coal is concentrated in a few hands, and the control of that industry has been fairly simple. But the farmers are scattered and numerous. Bituminous coal mines are also numerous and scattered. Laborers are most numerous, most obscure, anonymous, hardest of all to bring to the bar of public opinion. It is also hard to bring legal pressure to bear on farmers and laborers. They are so numerous that their political power is great. They have, moreover, definite class feeling and have a sense that they have been much exploited in the past, and these ideas are shared by many of the rest of us. They thus have social values of their own which tend to resist outside social pressures, and the outside

social pressures are weaker because many who are not laborers or farmers share the standards of the farmers and laborers. To coerce farmers and laborers is virtually impossible. They must *share* the collective sentiment and feeling which impel them to sacrifice their economic interests, if they are to make sacrifices. Something of the same sort is true of the grain and flour trade, although there is much more organization there, closely interwoven through boards of trade, private wires, and great milling organizations. It is perhaps not necessary to enlist the good will of the anthracite mine owners, or the steel corporations, or the copper mines and selling agencies. They can be forced to act in the public interest. It is fortunate that their good will has been enlisted, none the less. But it is vital that the good will of farmers and laborers be utilized. A policy of coercion and antagonism would be very harmful there. It is a great misfortune that the bituminous coal trade was violently antagonized and thrown into a state of bitter resentment when the government first took action with reference to the price of bituminous coal. This resentment Mr. Garfield has done much to lessen in recent weeks.

Where it is possible to utilize an unquestioned public ideal, which virtually all men share, as your agent of social control, even the obscure individual can be reached. It is not hard to shame the obscure slacker, who evades his duty as a soldier, because his neighbors and associates condemn him. It is not hard, moreover, to control the obscure retailer, because his customers have an interest in putting pressure on him. But if pressure be put on a whole large class, which the class resents, the obscure individual in that class has a social standard to which he can appeal, finds sympathy among those for whose good opinion he most cares, and can, moreover, hope to escape even legal penalties, because he expects to be dealt with by a jury of his own kind.

The good will of the grain trade, and the flouring industry, seems to have been won. Mills producing well over 90 per cent of the output of flour have signed without question the agreement to keep to the government's price of wheat, and have accepted the government's restrictions on their profits. Wheat has come slowly to the market from the farms, and there has been temptation to exceed the government's price. But the opinion of the best informed men in the trade seems to be that little of that has been done. In some cases there has been an evasion to the extent of a few cents per bushel, in that inferior grades of wheat have been accepted at the price of the best grade, but the differentials

are close in any case, and this evasion has not meant much. Moreover, even this seems to have been promptly stopped on intimation from the Grain Corporation that it would not be tolerated. The price of flour has not been fixed. Rather, the millers have been limited as to their profits, both on flour and on by-products. There is uncertainty in the trade as to how the profit should be computed. Overhead charges are not easy to apportion, and there is the further complication that the earlier months of the crop year are the busy months, and that allowance must be made for the dull months to come after January next. Millers do not expect to make much money this year, though they seem to feel that they will come out even, and are viewing the situation cheerfully, and grinding all the grain they can get. It may be added that the regulating authorities have also regulated the amount of wheat that millers may buy, and are holding in check by this means competition among the millers for wheat. The millers report their daily purchases of wheat. They are gratified that the government expects to send flour, rather than wheat, to Europe, thus enabling them to continue in business. They are acquiescing readily enough in the requirement that different grades of wheat be blended in their flours, in fixed proportions. This interferes with brands and trade marks, but they are making little complaint about it. The main purpose of this blending requirement is, of course, to protect the scant supply of hard wheat. There is, however, an incidental effect which is also of importance for our purposes. The government has established fixed differentials between the different grades of wheat. In a free market, differentials naturally vary. When, however, the proportions of different grades in the blend are prescribed, the difficulty of holding to the fixed differentials is lessened. The jobbers in flour have been given time to work off their flour purchased at the high prices of last June. But for the rest, they are restricted to a margin of 75 cents per barrel. Probably this margin is too low. The cost of jobbing with the largest Boston houses has been 49 cents. Other houses in Boston have costs of 70 cents. In New York the cost is probably above this. The lowest cost reported anywhere is 43 cents, but that was on carload lots. Smaller houses in very many cases have costs substantially exceeding 75 cents. They can stand the thing for a while, however, the more as flour is only one part of their business.—I call attention here to what I believe has been a serious error in the government's policy, at points—

the effort to shave prices and margins too closely. This has been especially the case in the soft coal industry, where, for reasons already indicated, coercion is hard to apply as compared with the more concentrated industries, whose prices seem to have been more generously fixed.—Control over both millers and jobbers in flour has been obtained, under the Lever Bill, by a system of licenses, without which they cannot do business, and to obtain which they must make a definite contract with the Grain Corporation to hold to the prices and margins set. Control over the retail price of flour has been to a large degree informal, although the license system is being extended to retail stores. But the retail price of flour has been held well down. The trade seems to be of the opinion that the government's policy has prevented the price of flour from soaring to unprecedented heights. Where flour is now selling at $12 to $13 per barrel, at retail, the trade thinks it would have gone to $25 per barrel in the absence of restrictions.

In dealing with the farmers, the government has recognized the difficulties already discussed. They cannot be legally coerced. The price paid for wheat must be high. They must feel that they are being justly dealt with. There has been, incidentally, a delicate political balance to be worked out as between laborers, demanding low food prices, and farmers demanding high prices. The greater concessions have probably been made by the farmers, but the price of wheat is reasonably high for this year, and a high price for next year has been guaranteed. There was a curious though natural miscalculation of the course the farmers would take in marketing their wheat. Last June, the men who were working at the problem felt that there was grave danger that the wheat market would collapse when the new wheat began to come in in large volume. Ordinarily the volume of wheat to be carried, at a given time, by dealers and speculators is small. Wheat is promptly exported or brought by millers as it comes to market. But with the submarine war, and the shortage of ocean vessels, it was feared that several times the normal amount of wheat, at twice the normal prices, would pile up in the primary markets at a given time. Elevator facilities were possibly adequate to meet this, but it was feared that financial facilities were not, that the trade would be unable to prevent a slump in the price of wheat. It was in part for this reason that $150,000,000, as a "revolving fund," was provided in the Lever Bill, to be used in market operations, to stabilize the price of wheat. It was originally planned

to fix, not one price of wheat, but rather, maximum and minimum prices, to be maintained by commercial operations, making the government the largest dealer in the grain market, buying without limit at the lower price, and selling without limit at the higher price. It was proposed by some, as a means of inducing the farmers to hold back their wheat, that these maximum and minimum prices be advanced month by month, by an amount that would equal carrying charges. Fortunately this plan of advancing the price month by month was not adopted. The other plan, of maximum and minimum prices, would have been an interesting experiment, but would have left the government with less effective control of the situation than it now possesses. The chief difficulty the present plan has met has been the slowness with which the farmers have brought their wheat to market. The explanation of this is not clear. Probably a good many farmers, prosperous and able to borrow on easy terms at the banks, have been holding their wheat, waiting, on the chance that the price might go higher. To no small extent, there has been real dissatisfaction with the price fixed. There have been cases where the farmers, in their dissatisfaction, have turned winter wheat land to rye, because there is no immediate prospect of limitation of the price there. The farmers must be dealt with on a commercial basis, if continuous production is to be assured. They must in any case get their costs of production. And cost of production—the older economists to the contrary notwithstanding!—includes agricultural rent. If land can be used advantageously to produce other things than wheat, it will not be used for wheat unless the price of wheat yields a rent that equals that to be obtained from the other use. On the whole, the $2.00 guarantee for next year seems to be sufficient to increase the production of wheat next year. The acreage of winter wheat is greater than in December of 1916, by 4 per cent. Of course, the $2.20 for wheat this year has no effect on the present crop year. Nor can the farmers expect to get more than that this year. Legal coercion is probably wholly unnecessary. The farmers face an absolute buyers' monopoly, like that which the Tobacco Trust presented to the tobacco growers. Nobody can buy wheat without a government license, for milling purposes, and the export trade in wheat is wholly in the hands of the government's Grain Corporation. But this buyers' monopoly is far more effective than any private monopoly could be. It is unassailable at law. It has back of it the prestige of the gov-

ernment. It can, if need be, call on the banks to put pressure on the farmers who are reluctant to sell.

Not only production and marketing, but also consumption has been in large part controlled by non-economic values. Mr. Hoover has inaugurated a campaign of suggestion to divert consumers from wheat to other grains. Very much has been done here, but not enough. Some of the poorer people have undoubtedly increased their consumption of wheat bread, as the price of meat has risen. But even this has been less by far than would have been the case without the campaign of suggestion, and among the more fortunate elements in society the reduced consumption of wheat has been very marked. Probably it will be necessary to stop the production of wheat flour entirely, and to provide a standard "war flour" in which wheat is blended with corn, barley, and rye. The wheat supply is short. But the machinery exists to accomplish this readily.

In handling the wheat problem, the fact that the existing machinery of the grain trade performs vital functions has been recognized. The fact that prices regulate production and consumption has been recognized. Whenever the government has interfered with the automatic working of the old mechanism, it has provided a substitute. Price-regulation has been merely a part of a comprehensive scheme. Non-economic values have been brought to bear as the operation of economic values has been interfered with; governmental machinery of coördination and control has been provided as the regulative and guiding activities of speculators and entrepreneurs have been dispensed with.

In the copper industry the existing machinery of the trade has been used. A copper committee, made up of leading copper dealers, has control over the shipments of copper. The price is fixed by agreement with the government. The Lever Bill, concerned with food and fuel, has not given authority, apparently, for coercion, but the copper men have known that the government could get the authority if it needed it, and have acquiesced readily in the government's proposals. The 23½ cents per pound price for copper seems adequate. Men in the trade say that while there may be mines which cannot operate on that basis, they are not "real mines," and their contribution to the total output is a small fraction of one per cent of the total. When the further fact is added that the total output is now under control, and is being sent where it meets the most important public purposes, I think

that we cannot deny the success of the policy in dealing with copper. The price fixed, several cents lower than prices that had prevailed, permits the mine owner to meet expenses of production. Expense of production, in the copper mines, for short-run purposes, does not include the rent of mines. The mines cannot be turned from copper to coal, as agricultural land can be turned from wheat to corn or rye. Land rent is a necessary part of cost of production only when there are alternative uses, or when there is danger that the land will not be kept up to its normal efficiency. Of course, if no rent at all is allowed the mines, there is danger of wasteful mining, with the ultimate ruin of the mines, but as a short-run policy, we need not worry about this in the case of copper.

A very large part of the reduction of prices falls, simply, on business profits, and on rents of fixed investments, mines, good will, and other non-transferable forms of wealth. But there is one element in expense of production which cannot be refused, and that is wages. Labor is the least specialized concrete factor of production, particularly that unskilled labor which is needed to work with skilled labor in almost every occupation. If the price fixed is so low as to interfere with wages, in any line, production in that line must be curtailed at once.

In the case of bituminous coal, the facts are still obscure. The cut there was drastic. The industry is little concentrated, and there are many small mines, run not in the most business-like fashion. The cost data which they had in past years supplied their own stockholders had been too low, leaving out adequate allowances for wasting assets, for betterments, and similar items. To a considerable extent, these data were the only source of information on which the government could act in setting prices. That the prices were too low seems to be conceded by the government in the increases that have since been allowed piecemeal. There is dispute as to how far wages have been held back, and how far strikes have occurred which would not have occurred had there been no restriction on the price. Probably many thin-vein mines were really unable to operate on the government's price. Probably much unskilled labor has been lost to the bituminous coal fields, in the period of demoralization that followed the price-fixing. Jobbers and retailers, in both bituminous and anthracite coal, were for a time demoralized by the new regulations. Banks hesitated in some cases to finance coal shipments, until the ques-

tions of margins and resale of coal purchased at high prices should be cleared up. There was nothing like the careful working out in advance of ways for meeting detailed contingencies that we find in the case of the grain and flour regulation. The bituminous coal trade was bitterly resentful of the failure to include in the regulating board at the outset men specially trained in the coal trade, and was very resentful of the setting aside of the price reached by informal agreement, which preceded the legally fixed price.

Bituminous coal prices had soared to unprecedented heights in the period preceding August of 1917, when the new price was fixed. But the rising prices had led to an unprecedented increase of production. The curves for bituminous coal for 1916 and 1917 make an interesting study. Nineteen hundred and sixteen was a year of extraordinary coal production, but up to August, 1917 surpassed 1916 by an enormous margin. The crest of 1917 production was in July. With August, there came a violent drop. There was some recovery, but October saw a second drop to the August level. In October, the 1916 curve passes above the 1917 curve for one week, and then the two curves move together. Whatever the causes, there has been a bad setback in bituminous coal production, coincident with the price-fixing. Not all of it is to be attributed to the price-fixing policy, in any case. Defenders of the policy have been attributing much of the trouble to car shortage. But there was car shortage before as well as after the new policy came into effect. In the week ending October 20, when production fell to 65 per cent of mine capacity, only a third of the reduction in output was attributed to car shortage in the weekly coal report of the United States Geological Survey.[1] For other weeks, car shortage has been responsible for a larger percentage of the reduced output, but on the average, since August, has been responsible for less than half down to November 10. And before August the mines were also contending with car shortage. The weekly coal report of August 4 shows that in July car shortage ran higher than in October.[2] The jobbers are expert in routeing coal so as to avoid congestion of freight, and the car shortage and congestion might have been less had they had less interference, and wider margins to work on. It is hard to get an accurate analysis of the situation. Until very recently, it has

[1] *Vide Black Diamond,* Nov. 17, 1917, p. 402.

[2] *Black Diamond,* Aug. 11, 1917, p. 107.

been hard to get temperate statements from men in the trade, or from the coal journals. Nor are the statements from some of the officials who have talked about the matter as temperate as one finds among the officials concerned with the regulation of wheat and flour. Of late, there is evidence of better feeling, and more judicious statements are being made. But I have found no one in the trade who questions that the price-fixing policy has reduced output below what it would have been had the price been left alone.

The failure to recognize differences in quality of bituminous coal by price-differentials has been a serious mistake. In at least one case, a mine producing premium coal has been shut down, and a mine producing inferior coal with a high ash content has been reopened, because there was no difference per ton in the price of the output of the two mines. The same company owned both mines, and had labor enough for only one. Differentials are not so easy to fix in coal as in wheat, but the coal trade makes them, on the basis of "thermal units," and it should not be impossible for the government to follow the trade practice.

Fortunately, the drastic cut in price was effective only in slight degree. The trade was more scared than hurt, so far as mine operators were concerned, because existing contracts were respected, and most of the operators in bituminous coal had enough contracts to take care of the bulk of their output. By the end of November I had heard of no sales of bituminous coal at government prices in New England. There may have been such sales, but they were surely exceptional. The jobbers felt themselves hard hit. Probably the jobbers' margin of 15 cents per ton is too low, though I speak with great diffidence. But most of the uncertainties have now been straightened out, production, though less than it would have been, is large; and we are seeing the beginning of a policy which, if wisely carried out, will redeem the whole bituminous coal policy. I refer to the control of coal shipments, so that nonessential industries cannot get coal.

It is, we may suppose, politically impossible to draft the labor of the country, and force its concentration on essential industries. Coal and copper can be drafted. Capital can be obtained for the government at a rate of interest far below the market rate. But labor cannot be drafted, or got to work below the market rate. There are, however, several indirect ways of bringing about the concentration of labor where the government wishes it to go.

Heavy taxation bearing specifically on nonessential industries will, of course, free labor for other purposes. Heavy taxation of incomes, likewise, will reduce private demand for the products of labor, and leave labor cheaper and more abundant for meeting the government's needs. Loans to the government, even when based on expanding bank credit in large part, enable the government to draw labor and raw materials away from the nonessential industries, whose products feel no increased demand, but whose costs rise, as the competition of the government for labor and raw materials increases. Further, we have the very effective device, on which I should lay heavy stress, of controlling the distribution of copper, coal, steel, cars, etc., so that the nonessential industries can't get them, and are obliged to shut down. It should be easy, also, for the government to bring the banks to curtail loans to such industries. Moreover, many industries are being converted through the patriotism or business acumen of their managers to war purposes, and many industries are introducing radical economies in the use both of labor and raw materials, at the instance of the government, without legal coercion. All these methods are, in fact, working to the same end. There is no conflict among them. It seems to me that much of our controversy over methods of war finance has been needless, so far as this point is concerned.

We are met with an objection, however, growing out of the quantity theory of money, which must receive brief consideration. It is argued that price-fixing is futile. Gold has come into the country in great quantity, and the government's policy of financing the war in large part by loans is leading to a considerable expansion of bank credit. These facts must force up the price level, the average of prices. If some prices are artificially held down, the result will be that the free prices must rise even higher than would have been the case if all prices were free. It is no answer to say that this doesn't matter so long as we control the essential prices; that we can allow the prices of luxuries, and of stocks and bonds, to soar, so long as we keep the prices of military supplies and the necessities of life down. Because, if this view be true, then the rising prices of nonessentials will tempt labor and capital away from the production of the military supplies and the necessities of life. Is our ship to be sunk by the quantity theory U-boat? I do not think so.

This objection rests on what I venture to consider an erroneous view of the relation of money and credit to prices. One point

must suffice, though there are many things that seem wrong with this general philosophy of money. Prices are not passive things, borne on the surface of the waves of money and bank credit, like a cork on the surface of the water. Rather, prices are active causes in the process, and, to the extent that prices and bank credit are tied together, the causation is as likely to be initiated by the prices as by the bank credit. In the case in question, something of the following sort seems probable: If the government holds down the prices of the things it buys, it will spend the proceeds of its loans more slowly, and borrow less. The expansion of bank credit is thus less rapid than if prices were uncontrolled. Further, the prices the government pays are the incomes of those to whom it pays them, and they consequently spend less. Those with whom they deal are thus able to pay less in making their purchases, and so on through the whole chain of expenditures initiated by the government, or by the people, at the fixed prices. With copper at 23½ cents, moreover, the bank credit required to finance the movement of copper is less than would be the case if copper were at 30 cents. And so with wheat and flour and steel and coal. Further, if copper be cut from 30 cents to 23½ cents, the prices of copper stocks will be cut greatly, as they have been cut, and so with a host of other stocks. Bank loans based on stock exchange collateral are correspondingly reduced. Instead, therefore, of fearing with the quantity theorist that reducing some prices will force an advance in others, we may hold that reducing some prices will tend to reduce the rest. And we may expect this reduction in prices to reduce the volume of bank loans and deposits.

Further than that: holding down the prices of necessities will make it easier to put through effectively the campaign of thrift which we are initiating. There are tremendous possibilities here, if we can make the people understand that thrift is a patriotic duty. We can check consumption of luxuries both by denying cars, coal, etc., to the industries that produce them, and by altering the course of popular expenditure from luxuries to Liberty Bonds and loan-stamp books. There is a large surplus of income, even of real income, in the hands of special classes, among them large groups of laborers and farmers; and we can reach this by a campaign of thrift. Most of the people can save if the prices of necessaries are kept down. If we can't get the luxuries, and if our necessaries are held down, we can lend to the government

out of current income, instead of through borrowings at the bank. Most of our luxurious expenditure is a matter of competitive display, forced upon us by social expectation. We should be able to set a different fashion in war time.

I do not wish to be understood as concluding that the price-fixing policy is free from dangers, or that it is a possible permanent policy. It has been emphasized that the success of the policy depends in large degree on the play of non-economic social pressures which only war conditions can evoke. Moreover, much of its success depends on the expectation that it is not to be permanent. Further, and of highest importance, its success is conditioned by the degree of intelligence and honesty which the government can bring to bear in substituting conscious control and guidance of economic processes for the automatic control which free prices usually exercise. It is as if the brain were undertaking to supervise the flow of the blood and the beating of the heart, instead of leaving their control to the lower nervous centers. Blunders or scandals may easily wreck things. The coöperation of the ablest and most upright men in the various trades is vital. The more prices the government undertakes to control, the greater the difficulties involved. Few of the practical conclusions of this paper would have valid application to ordinary peace conditions.